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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,792	11/19/2002	Charles E. Baumgartner	122353	4752

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EXAMINER

ADDISON, KAREN B

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,792

Applicant(s)

BAUMGARTNER, CHARLES E.

Examiner

Karen B Addison

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-24 in Paper No. 2 is acknowledged. The traversal is on the ground(s) that the applicant's invention of a mesh would be sandwiched between the two surfaces coated with dried adhesive and thus these surfaces would not be in contact and could not cohere in the manner describe is noted. However, This is not found persuasive because that the product as claimed can be made by another and materially different process such as inject molding contact bonding, vacuum-impregnating the appropriate resin into the stack etc. Because the inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper therefore made Final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8 are rejected under 35 U.S.C. 102(B) as being anticipated by Bost (4078160).

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Bost discloses in fig.1 an assembly comprising: an layer made of ultrasound transducing material (25), an electrically conductive coating (25) on a surface of the layer of ultrasound transducing material; a substrate (23) made of dielectric material; an electrical conductor (27) formed on a surface of said substrate, the substrate being disposed so that the electrical conductor confronts the electrically conductive coating (42) on the layer of ultrasound transducing material; an electrically conductive mesh 30 (having a total thickness of 10 microns or less) disposed so that a portion intervenes between and is in contact with the electrical conductor on the substrate and the electrically conductive coating on the layer of ultrasound transducing material; and adhesive material occupying interstices in said mesh and in contact with the electrically conductive coating and the electrical conductor wherein; the adhesive material comprises epoxy resin, or functionally equivalent adhesive. The mesh comprises strands of metal polymer plated with metal that's electrodeposited; the transducer comprises piezoelectric material and the dielectric material comprising a polymer-electrodeposited material.

4. Claims 9-17 are rejected under 35 U.S.C. 102(B) as being anticipated by King (6051913).

King discloses an ultrasound transducer in fig.4 comprising comprising: a body of piezoelectric ceramic material (20), the body comprising front and rear surface; a electrode (30) formed on the rear surface of the body of piezoelectric ceramic material. King also discloses, a substrate (22) made of dielectric material; a pad of electrically conductive material (metallic coating) formed on a surface of the substrate wherein, the

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substrate is disposed so that the pad confronts the electrode; an electrically conductive mesh 64 (electrodeposited material 10 micros or less) disposed so that a portion intervenes between and is in contact with said pad and the electrode; and an adhesive material occupying spaces in the mesh and in contact with the pad and the electrode. King also discloses an adhesive material comprises epoxy resin or functionally equivalent adhesive wherein; the mesh comprises strands of polymer plated with metal and the dielectric material comprises a polymeric film. King also discloses an acoustic matching layer (124) disposed in front of the front surface of the body of the piezoelectric ceramic material and acoustic backing layer (34) disposed behind the dielectric substrate.

Claims 18-24 are rejected under 35 U.S.C. 102(B) as being anticipated by Montero (ES 2024763).

Montero discloses an ultrasonic substrate in fig.2 comprising: an array of ultrasound transducer elements, each of the ultrasound transducer elements (ec) comprising a respective body of piezoelectric ceramic material (cp) and a respective electrode formed on a surface of the respective body; the bodies being substantially acoustically isolated from each other (see fig.2), and the electrodes being substantially electrically isolated from each other; and a printed circuit (cf) comprising an array of electrically conductive traces, pads and electrically conductive material (ec traces and pads), each pad confronting a respective one of the electrodes, the pads being substantially electrically isolated from each other. Montero also discloses the printed circuit (cf) bonded to the array of transducer elements by adhesive material (epoxy) disposed between said

confronting electrodes and pads. Montero also discloses multiplicity of sections of an electrically conductive mesh, embedded in the adhesive material, each one of the mesh sections being sandwiched between a respective one of the electrodes and a respective one of the pads, each of the mesh sections being separated from adjacent mesh sections by a respective gap (fig2) wherein; the mesh is (electroformed). Montero also discloses an acoustic backing layer wherein, the flexible dielectric substrate (A see fig.2) is sandwich between the array of the ultrasound transducer elements and the acoustic backing layer. (Col.1 line 38-42).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen B Addison whose telephone number is 571-272-2017. The examiner can normally be reached on 8:00 to 4:30.

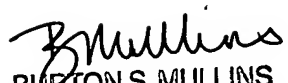
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1317. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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KBA
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BURTON S. MULLINS
PRIMARY EXAMINER